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What is claimed is:

1. A charged-particle beam irradiator for allowing a scan electromagnet provided on an entrance side of a final deflection electromagnet to scan a charged-particle beam to expand an irradiation field, said charged-particle beam irradiator, comprising:

a plurality of said scan electromagnets, wherein

kicks provided by the plurality of said scan electromagnets

are superimposed to form a collimated irradiation field at an

exit of said final deflection electromagnet.

2. A charged-particle beam irradiator according to claim 1, wherein said plurality of scan electromagnets are arranged according to following equation.

$$a_{11}(s_1) \bullet X_1' + a_{11}(s_2) \bullet X_2' + \dots + a_{11}(s_n) \bullet X_n' = 0$$

position

where, n:number of the electromagnets. $s_1 \cdot \cdot \cdot s_n \colon \text{ distance from each electromagnet to} \\ \text{beam irradiated position} \\ a_{11}(s) \colon \text{ coefficient of beam transport matrix} \\ X' \colon \text{ beam divergence at the beam irradiated}$

- 3. A charged-particle beam inradiator according to claim 1 or 2, wherein said plurality of scan electromagnets are
- deflection electromagnet disposed on an entrance thereof.

interposed between said final deflection electromagnet and a

4. A charged-particle beam irradiator according to claim 3, wherein said plurality of scan electromagnets are disposed

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upstream from said deflection electromagnet at an entrance thereof.

- 5. A charged-particle beam irradiator according to claim 1 or 2, wherein said plurality of scan electromagnets are disposed independent of each other in X and Y directions.
 - 6. A therapy system, comprising:

a charged-particle beam irradiator, having a plurality of scan electromagnets, configured such that kicks provided by the plurality of said scan electromagnets are superimposed to form a collimated irradiation field at an exit of a final deflection electromagnet to irradiate an affected part with a charged-particle beam.